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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/147,520	02/22/1999	RYUZOU TOMOMATSU	2421-0331-2X	1832

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12/04/2001

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EXAMINER

ROSENBERGER, RICHARD A

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 12/04/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/147,520

Applicant(s)

TOMOMATSU

Examiner

Richard Rosenberger

Art Unit

2877



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Nov 15, 2001
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 5, and 7-12 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 5, and 7-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other:

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 5,706,091).

The Shiraishi reference shows a system in which light is directed onto a surface to be inspected with a light source (1) and an objective lens (9) collecting reflected light. There is a slit (26) and a detector (28). There is an illumination switchover means (6, 7, 8) to switch between bright field and dark field illumination.

The illumination switchover means uses a half mirror (8). The reference does not appear to specifically mention that the "light is made parallel" by the projection lens (5); it would have been obvious to have that lens make the light parallel. When darkfield illumination is used, the light is made ringlike and is applied obliquely to the surface.

The slit (26) is adjustable (column 19, lines 38-41); although the Shiraishi reference does not specifically mention a range of values that can be used for the sizes of the adjustable aperture, those in the art could determine such a range as is useful for the particular use and sample at hand.

Calibrating the instrument using a standard known object would have been obvious. Placing the receiving optics in a tubular housing would have been obvious; such housings are standard in the art. The use of optical fibers to conduct light within such an instrument would have been obvious; optical fibers are commonly used to conduct light.

3. Claims 5, 7, 8, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 5,706,091) and Haga (US 5,523,846) and Worster et al (US 5,963,314).

See the discussion of Shiraishi above.

Shiraishi discloses that a zoom lens can be used to adjust the size of the light spot on the sample; see column 27, lines 31-36 and column 38, lines 57-65. In a related type apparatus shown by Haga, it is also known that the detector can be equipped with a zoom lens to adjust the magnification in addition to an adjustable aperture (see column 4, lines 50-53 and 59-61). Worster shows changing the magnification of the objective lens in a optical inspection system (see column 8, lines 9-18). Thus it is known in the art that magnification changes are useful and that it is known in the art to provide means, such as zoom lenses or interchangeable lenses, to provide such magnification changes. It is therefore would have been obvious to provide such adjustability of magnification to the objective lens of the

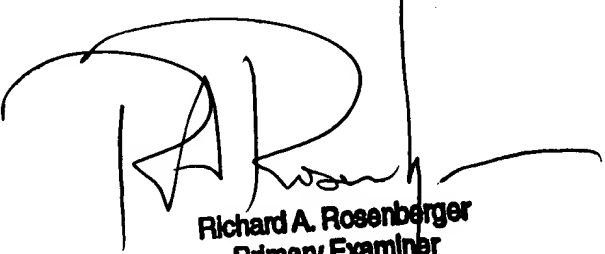
device of Shiraishi in order to provide the known flexibility and adjustability known to be useful in the art as illustrated by the references.

4. Papers related to this application may be submitted to Group 2800 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The fax number is (703) 308-7722.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. A. Rosenberger whose telephone number is (703) 308-4804.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

R. A. Rosenberger
23 November 2001



Richard A. Rosenberger
Primary Examiner